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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,068	10/02/2001	Chia-Tin Chung	13732.1US01	9067

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/970,068

Applicant(s)

CHUNG ET AL.

Examiner

Dawn Garrett

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The Information Disclosure Statement received May 17, 2002 (paper no. 4) citing U.S. 5,882,761 has been considered. A copy of Information Disclosure Statement received April 3, 2002 (paper no. 3) is also attached to this Office action, but the examiner has crossed out the reference and the reference has not been considered. Applicant indicated in the correspondence received on May 17, 2002 that the incorrect reference had been filed previously on April 3, 2002 due to a typographical error. The examiner agrees that cited reference U.S. 5,822,761 submitted on April 3, 2002 is not relevant to the instant application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The recitation of "a trench...in position to the luminescent device" in claim 6 is unclear. The use of the phrase "in position to" does not clearly set forth where the

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trench is located relative to the luminescent device. Clarification and/or correction are required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 4, 5, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers (U.S. 6,081,071) in view of Young et al. (US 6,489,719). Rogers teaches an electroluminescent device which is encapsulated (see title). The Rogers laminate EL device (**13**) is shown in Figure 2 (see also col. 2, lines 60-66). Rogers teaches an organic EL apparatus is comprised of a light-emitting layer formed between a pair of electrodes per instant claim 11 (see col. 1, lines 22-24). The device is adjacent a glass substrate and a glass cover is positioned over the substrate per the instant "sealing case" of instant claim 1 (see abstract). Two sealing layers (**22** and **23**) attach the glass substrate to the glass cover (see abstract and Figure 2). Desiccant, deposited on the glass cover, is used between the perimeter sealing layers for absorption of moisture and gases in the Rogers structure in contrast to the instant limitation requiring the drying layer on the glass substrate (see Figure 2 and col. 4, lines 7-33). Although Rogers teaches the use of desiccant to protect the device, Rogers fails to teach that either of the two sealing layers formed on the inner surface of the glass substrate (per instant claim 1) specifically comprise a desiccant dispersed in the

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adhesive agent of the sealing layers. Young et al. teaches, in analogous art, an adhesive seal between an EL substrate and a sealing cover, which comprises inorganic particles such as Al_2O_3 and SiO_2 deposited in an adhesive (see Young et al. col. 3, lines 1-15). These particles dispersed in an adhesive read upon the composite material per instant claims 2, 4, and 5. The incorporation of the inorganic particles in the adhesive material allows moisture to diffuse more slowly through the seal than through a seal comprising only adhesive material (see Young et al. col. 3, lines 8-10). It would have been obvious for one of ordinary skill in the art at the time of the invention to have used a seal as taught by Young et al. comprising adhesive material with dispersed inorganic particles such as Al_2O_3 and SiO_2 as the adhesive agent for the two perimeter seals in the Rogers device, because Young et al. teaches the incorporation of inorganic particles in an adhesive for an EL device sealing layer provides decreased moisture permeation through the seal which provides increased protection to the EL device against environmental damage. The two perimeter seals (**22** and **23**) of Rogers read upon the instant outer "sealing layer" and the instant inner "drying layer".

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers (U.S. 6,081,071) in view of Young et al. (US 6,489,719) in further view of Bernius et al. (US 6,383,664). Rogers and Young et al. are relied upon as set forth above. Young et al. teaches the organic sealing material comprises epoxy-based adhesives and hydrocarbons (see Young et al. col. 3., lines 1-3), but fails to mention specifically that UV-curing resin is also a suitable adhesive as required by instant claim 3. Bernius et al. teaches, in analogous art, UV-curable adhesives and epoxy adhesives are equivalent

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sealing materials for use in sealing an EL device protective cover. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used UV-curable adhesive in place of epoxy resin in the Young et al. organic sealing material, because Bernius et al. teaches UV-curable adhesive and epoxy resin are equally useful in forming a seal for an EL device protective cover.

Allowable Subject Matter

9. Claims 6-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please note these claims stand rejected under 35 USC 112, second paragraph, as set forth earlier in this Office action, but are deemed allowable over the prior art. The closest prior art to instant claims 6-10 is considered to be Ebisawa et al. (U.S. 6,284,342), which teaches an EL structure with a protective covering. The covering is sealed to the substrate. In the inner surface of the covering, a recess is formed comprising desiccant and a water/gas permeable sheet. The recessed area fails to include a hydrophobic layer as required by instant claim 6 (see Ebisawa et al. Figure 1 and col. 4, lines 7-14).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (703) 305-0788. The examiner can normally be reached Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached at (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.

Dawn L. Garrett

DAWN GARRETT
PATENT EXAMINER
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D.G.
February 14, 2003